

CONCENTRATIONS OF MUTILLID WASPS (HYMENOPTERA: MUTILLIDAE)¹

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About 1936 a considerable number of mutillid wasps were found in a strip in Rocky Mountain bee plant, *Cleome serrulata*, growing along an abandoned irrigation ditch south of Dillon, Beaverland County, Montana. Males were feeding on the flowers and females were active on the ground. About 50 specimens, representing several species, were collected and sent to Dr. Clarence E. Mickel at the University of Minnesota. This apparently represented the largest single collection from Montana up to that time.

In the spring of 1971 the County Agent, Mr. Rob Johnson, at Hamilton, Montana, asked me to examine some insects which had been brought in for identification. The jar contained 10 to 15 live mutillids from a local garden. Inspection of the garden revealed dozens of female wasps on young sunflower plants and on the ground. Many of the wasps were feeding on the sunflower leaves near the petiole. Apparently they were obtaining plant sap or secretions as no damage to the leaves was visible. Many specimens were collected but the infestation continued for days. Only females were present. Inspection of the garden, its grassy border and adjoining lawn did not disclose the source of the insects.

A few weeks later an unusual amount of bee activity was noticed on a vacant lot across the alley from the garden. This lot had been sprayed with herbicide sometime previously and was practically free of vegetation. The surface was clean and packed. The entire lot was swarming with bees and many were excavating nest tunnels. Female mutillids were scurrying over the area and exploring nest tunnels of the bees. Male mutillids were flying over the lot and running on the ground. Mating was frequent but brief. Four to 10 males clustered around a single female. This activity continued for weeks. This high concentration persisted for several summers. We estimated that there were 4,000 to 10,000 mutillids in sight at one time. Many specimens were preserved and series of both bees and wasps were sent to Dr. Mickel; U.S. National Museum; University of Kansas, and California Academy of Sciences.

The bees were identified at the U.S. National Museum as *Melissodes pallidesignata* Cockerell and the mutillids as *Pseudomethoca propinqua* (Cresson). Another bee, *Triepeolus wyomingensis* Cockerell, was fairly abundant in the area and it may be a parasitic species. These identifications

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were made by Dr. Karl V. Krombein of the Smithsonian Institution. Dr. Mickel concurred in the mutillid identification.

Other records of mutillid abundance are not readily available but Mickel (1928, p. 17) states "During the summer of 1922 nearly 1,200 specimens of mutillids were collected. . .". This was in Minnesota. He also states (p. 39) "Approximately 10,000 specimens have been examined individually during the course of this work . . .".

REFERENCE

Mickel, C.E. 1928. Biological and Taxonomic Investigations on the Mutillid Wasps. United States National Museum Bulletin 143: 351 pages.

INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

c/o BRITISH MUSEUM (NATURAL HISTORY)
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A.N.(S.) 120

The Commission hereby gives six months' notice of the possible use of its plenary powers in the following cases, published in *Bull. zool. Nom.* volume 38, part 4, 8 December 1981, and would welcome comments and advice on them from interested zoologists. Correspondence should be addressed to the Secretary at the above address, if possible within six months of the date of publication of this notice.

Case No.

- 2359 *Typus* Sellards, 1909 (Insecta, Protodonata), proposed conservation under plenary powers.
- 2148 *Capsus ater* Jakovlev, 1889 and *Lygaeus quadripunctatus* Fabricius, 1794 (Insecta, Hemiptera, Heteroptera), proposed nomenclatural validation.
- 2317 *Byrrhus semistriatus* Fabricius, 1794 (Insecta, Coleoptera, Byrrhidae), proposed conservation.

ITZN 59

The following Opinions and Directions have been published recently by the International Commission on Zoological Nomenclature in the *Bulletin of Zoological Nomenclature*, volume 38, part 4, 8 December 1981.

Opinion No.

- 1188 (p. 239) *Aphis pyri* Boyer de Fonscolombe, 1841 (Insecta, Hemiptera), conserved.
- 1191 (p. 249) *Berytus consimilis* Horváth, 1855 (Hemiptera, Berytinidae), lectotype designation confirmed.
- 1192 (p. 252) *Lecanium acuminatum* Signoret, 1873, (Insecta, Homoptera, Coccidae), neotype designated.
- 1193 (p. 254) *Ceratophysella* Börner, 1932 (Insecta, Collembola), conserved.

Direction No.

- 109 (p. 276) Seven family-group names in Insecta, Heteroptera, placed on Official List
- 110 (p. 280) *Ixodes* Latreille, 1795 (Arachnida, Acarina), entry in Official List of generic names confirmed.

The Commission regrets that it cannot supply separates of Opinions or Directions.

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Secretary